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BEES AND WASPS

Philip J. Hamman
Extension Entomologist

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Bees and wasps are two of the insects most beneficial to man. Bees produce honey and wax and serve as important pollinators. Wasps attack and destroy many kinds of harmful insects including flies and caterpillars. In spite of their value, several kinds of bees and wasps are unwelcome in and around buildings because of their ability to sting. Since bees are similar to wasps in appearance, honey bees are often blamed for the misdeeds of some of the social wasps such as the hornets and yellow jackets. Wasps can sting repeatedly, while the honey bee stings only once and leaves its stinger at the site of the sting.

Honey Bee Swarms

In spring and early summer, honey bee colonies divide by swarming. Half or more of the worker bees leave their home to begin a new colony, usually with their old queen. They cluster temporarily on some object such as a tree branch for a period of a few hours to several days, and then enter a new home such as a hollow tree or the wall of a building.

Swarms are not usually a problem unless they land in an inconvenient spot or are molested. They are best left alone until they leave. It is wise to have on hand the names of beekeepers willing to collect swarms. The low value of the bees themselves and other problems of collecting swarms have forced many beekeepers to charge for the service. An alternative is to have the bees killed by a pest control operator who will also charge for doing the job.

Honey Bees in Buildings

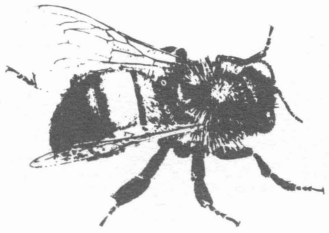
When a swarm enters a building, it begins to build combs of wax in which to rear young bees and store honey. Only at this time, when the bees first enter, can they be killed without having to open the wall and remove large quantities of dead bees, wax and honey. If the colony has been in place as long as a month, it must be removed after it is killed, to prevent problems from the odors of decaying bees, other insect pests entering the wall, and honey released within the wall as combs melt or are destroyed by other insects or mice.

Insecticides are the safest and most satisfactory materials for killing bees in buildings. Do not use fumigants or other poisonous or flammable compounds. Carbaryl (Sevin), chlordane, diazinon and malathion are most suitable. *All of them are toxic to humans and must be used with care, according to the directions on the container label.*

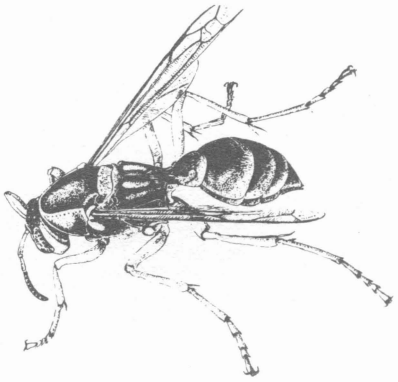
Before applying an insecticide, you must know the location of the colony in the wall, especially in relation to the flight entrance. In many cases, the colony's nest is far enough away from the entrance that insecticides applied at the entrance will not reach the bees. The bees' nest should be located by tapping on the wall at night and listening for the area of loudest buzzing sounds. The bees keep the nest center at about 95 degrees F, a temperature high enough to warm the wall beside it so that you may be able to feel as well as hear the nest location.

Either dust or spray formulations can be used within walls or other cavities, but dusts generally disperse better. Apply the insecticide at night through the entrance hole, if the colony is fairly close to it in the wall. Otherwise, drill a hole in the wall above the colony and apply the dust or spray through it. Afterwards, seal the hole and all other holes through which bees might enter or leave the wall. An extremely large colony may require an additional treatment after about 10 days to kill emerging young bees.

After all sound and flight activity have ceased, or at least within 2 weeks, open the wall and remove all dead bees, combs and honey. These must be burned or buried because they are attractive to other bees and are toxic to both bees and people. Do not leave the honey and wax where other bees can reach it or you may damage valuable honey bee colonies nearby. The location within the wall will be attractive



Honey Bee



Paper Wasp

to other swarms unless it is sealed tightly to keep them out. An additional application of insecticide will also help to prevent the entry of another swarm.

Bumble Bees

Bumble bees are occasionally a problem when they nest in and around buildings or near walks. They like to nest in old mattresses, car cushions and other places such as mouse nests. The colonies vary widely in disposition and size, with rarely more than a few hundred bees. They can be killed by insecticide dust or spray applied to the nest at night. Use the same compounds suggested for use on honey bees.

Carpenter Bees

Carpenter bees are large metallic-colored bees similar in size and general appearance to bumble bees. Carpenter bees tunnel into the wood of beams, rafters, telephone poles or other structural timber, dividing their burrows into a series of cells. They provision each cell with pollen and deposit a single egg in each cell.

The carpenter bees *Xylocopa texanus* and *Xylocopa brasilianorum* are commonly found in Texas. These bees often attack decayed live oak, pepper or eucalyptus. Ordinarily, damage by carpenter bees is of little or no consequence, but structural repairs may be necessary if colonies are found year after year in the same timbers.

Male carpenter bees are at times annoying because they will fly around the heads of humans. Since they lack a stinger, they are entirely harmless. The females possess a potent sting which they very rarely use. The males and females overwinter in old nest tunnels, and if the winter is not too severe they will survive to emerge in spring.

Tunnels usually average 4 to 6 inches in length, but galleries used by a number of bees may be up to 10 feet in length. The female excavates the gallery by means of her mandibles, and she can excavate approximately one inch in 6 days.

Lumber and dwellings can be protected by frequent applications of paint. Applications of insecticide to partially constructed tunnels in wood will kill the adult bees and check the damage. Insecticide sprays and dusts commonly used to control carpenter bees include carbaryl (Sevin), chlordane, diazinon or malathion.

Wasps

Hornets, yellow jackets and paper wasps are social wasps that build gray-colored paper nests either in the open or underground. They often sting people who approach nests located under eaves, in shrubbery, or in underground cavities near buildings or walks. Solitary wasps, even the very large cicada-killer wasp that nests in the ground, rarely sting unless they are handled or get caught in one's clothing. They have no instinct to protect their nests as the social species do.

Nests above ground may be sprayed at night with chlordane or diazinon. Mix the spray from emulsifiable concentrate or wettable powder. Underground nests can be treated by spraying or dusting the same materials into the entrance at night. Cover the entrance with a shovelful of moist soil after treatment.

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